

## PATENT COOPERATION TREATY

**PCT**INTERNATIONAL SEARCH REPORT  
(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference 008998-0015	FOR FURTHER ACTION	see Form PCT/ISA/220 as well as, where applicable, item 5 below
International application No. <b>PCT/CA2005/000006</b>	International filing date ( <i>day/month/year</i> ) 06 January 2005 (06-01-2005)	Priority date ( <i>day/month/year</i> ) 07 January 2004 (07-01-2004)
Applicant <b>ALSTOM CANADA INC. ET AL</b>		

This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 3 sheets.

It is also accompanied by a copy of each prior art document cited in this report.

1. **Basis of the report**

a. With regard to the language, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

The international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

b.  With regard to any nucleotide and/or amino acid sequence disclosed in the international application, see Box No. I.

2.  Certain claims were found unsearchable (see Box No. II).

3.  Unity of invention is lacking (see Box No. III).

4. With regard to the title,

the text is approved as submitted by the applicant.

the text has been established by this Authority to read as follows :

5. With regard to the abstract,

the text is approved as submitted by the applicant.

the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regard to the drawings,

a. the figure of the drawings to be published with the abstract is Figure No. 1

as suggested by the applicant.

as selected by this authority, because the applicant failed to suggest a figure.

as selected by this Authority, because this figure better characterizes the invention.

b.  none of the figures is to be published with the abstract.

# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/CA2005/000006

## A. CLASSIFICATION OF SUBJECT MATTER

IPC7 H04L 29/02, IPC7 H04L 5/22, IPC7 H04L 12/40, IPC7 H04L 12/18

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

H04L

Documentation searched other than minimum documentation to the extent that such documents are included in the fields

Electronic database(s) consulted during the international search (name of database(s) and, where practicable, search terms

Delphion: transceiver, encoder, decoder, mux or multiplexer, pre-emphasis, framer, compression, analog, delta-sigma, tdm or time division

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant	Relevant to claim No(s).
X	"SLK2701 OC-48/24/12/3 SONET/SDH Multirate Transceiver" Data Sheet, December 2001, Texas Instruments, pp. 1-5.	1, 8-10, 14-17, 22-23, 26
Y		5-7
P, X	EP 1460794 (Page) 22 September 2004 (2004.09.22), abstract, paragraphs [0004], [0007-0008], [0020], [0034], [0037], [0075-0080], figures 12, 13, 17 and 18.	1-4, 8-10, 22
P, A		5-7, 27, 28, 30-32, 35, 36
Y	EP 1107599 A2 (Terayon Communication Systems) 13 June 2001 (2001.06.13), abstract	7
Y	WO03084121 A1 (Short) 9 October 2003 (2003.10.09), abstract	5
Y	EP 1215848 A1 (Suzuki) 19 June 2002 (2002.06.19), abstract	6

[ ] Further documents are listed in the continuation of Box C.    [X] See patent family annex.

\* Special categories of cited documents :  
 "A" document defining the general state of the art which is not considered  
 to be of particular relevance  
 "E" earlier application or patent but published on or after the international  
 filing date  
 "L" document which may throw doubt on priority claim(s) or which is  
 cited to establish the publication date of another citation or other  
 special reason (as specified)  
 "O" document referring to an oral disclosure, use, exhibition or other  
 means  
 "P" document published prior to the international filing date but later than  
 the priority date claimed

"T" later document published after the international filing date or  
 priority date and not in conflict with the application but cited  
 to understand the principle or theory underlying the invention  
 "X" document of particular relevance; the claimed invention cannot  
 be considered novel or cannot be considered to involve an  
 inventive step when the document is taken alone  
 "Y" document of particular relevance; the claimed invention cannot  
 be considered to involve an inventive step when the document  
 is combined with one or more other such documents, such  
 combination being obvious to a person skilled in the art  
 "&" document member of the same patent family

Date of the actual completion of the international search  
 16 February 2005 (16-02-2005)

Date of mailing of the international search report  
 11 May 2005 (11-05-2005)

Name and mailing address of the ISA/CA  
*Canadian Intellectual Property Office*  
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Faxsimile No: 001(819)953-2476

**INTERNATIONAL SEARCH REPORT**

Information on patent family members

International application No.

PCT/CA2005/000006

Patent Document Cited in Search Report	Publication Date	Patent Family Member(s)	Publication Date
EP1460794	22-09-2004	EP1460794 A2 GB0306602D D0 JP2004297802 A US2004234000 A1	22-09-2004 30-04-2003 21-10-2004 25-11-2004
EP1107599	13-06-2001	AT216543T T AU711984 B2 AU2210597 A AU6714896 A BR9610132 A CA2230294 A1 DE69620781D D1 DE69620781T T2 EP0858695 A1 EP1107597 A2 EP1107598 A2 EP1107599 A2 EP1130918 A2 EP1130919 A2 IL123278 A JP3507080B2 B2 KR274300 B1 US5745837 A US5768269 A US5793759 A US5805583 A US5966376 A US5991308 A US6154456 A US6307868 B1 US6356555 B1 US6665308 B1 US2001001616 A1 US2001024474 A1 US2001046266 A1 US2002015423 A1 US2003156603 A1 WO9708861 A1 WO9734421 A1	15-05-2002 28-10-1999 01-10-1997 19-03-1997 21-12-1999 06-03-1997 23-05-2002 28-11-2002 19-08-1998 13-06-2001 13-06-2001 13-06-2001 05-09-2001 05-09-2001 10-03-2002 15-03-2004 15-12-2000 28-04-1998 16-06-1998 11-08-1998 08-09-1998 12-10-1999 23-11-1999 28-11-2000 23-10-2001 12-03-2002 16-12-2003 24-05-2001 27-09-2001 29-11-2001 07-02-2002 21-08-2003 06-03-1997 18-09-1997
WO03084121	09-10-2003	AU1816700 A AU7882300 A AU2003216544 A1 AU2003220990 A1 CA2391564 A1 CA2414179 A1 CA2479729 A1 EP1129542 A1 EP1247274 A1 EP1488567 A2 JP2002530009T T JP2003514259T T US6137045 A US6363153 B1 US2002154770 A1 US2002164032 A1 WO0028695 A1 WO0135387 A1 WO03081829 A2 WO03084121 A1	29-05-2000 06-06-2001 13-10-2003 08-10-2003 18-05-2000 17-05-2001 02-10-2003 05-09-2001 09-10-2002 22-12-2004 10-09-2002 15-04-2003 24-10-2000 26-03-2002 24-10-2002 07-11-2002 18-05-2000 17-05-2001 02-10-2003 09-10-2003
EP1215848	19-06-2002	EP1215848 A1 JP2002185559 A US2002077072 A1	19-06-2002 28-06-2002 20-06-2002